

# **EXHIBIT F**

## **PART 5**

1 perhaps field inspection reports and the case  
2 captions and the artifact would have been  
3 searchable.

4 BY MR. HARTMAN:

5 Q. Do you know if that exists today?

6 A. I don't know.

7 Q. I am going to take you down to the  
8 paragraph on page 13 that begins with another  
9 safety philosophy.

10 A. Uh-huh.

11 Q. It says another safety philosophy  
12 developed over the years by safety professionals in  
13 using evaluation of equipment, risk minimization is  
14 a safety priority approach or hierarchy.

15 Are you familiar with that safety  
16 hierarchy?

17 A. Yes.

18 Q. Can you explain for us what that hierarchy  
19 is?

20 A. Hierarchy goes something like this, in a  
21 vacuum, in a void, if you knew nothing else, this  
22 is the way you might approach a hazard. The best  
23 thing you can do is eliminate the hazard.

24 So if the hazard is exposure to a

1 chemical, if you could eliminate that chemical and  
2 substitute something else, that would be the best  
3 thing you can do. And typically you can't always  
4 do that. But if you could and it is reasonable and  
5 falls within other kind of constraints, that would  
6 be probably the best thing you could do.

7 After that comes safeguarding.

8 Safeguarding includes things like physical barrier  
9 guards and hardware things but it also can include  
10 devices, methods, those kinds of things.

11 The third, fourth and fifth items which  
12 sometimes shift their position include things like  
13 training, warning and personal protective equipment  
14 and/or clothes, clothing.

15 So in this case the use of tools would  
16 have been one way of helping to safeguard this  
17 particular area. Excuse me. The primary way,  
18 though, since you cannot typically, on a press  
19 brake you cannot always eliminate the hazard, the  
20 most common thing to do is to provide safeguarding.  
21 And that typically takes the form of light curtains  
22 or other kinds of barriers to prevent your hands  
23 from being in the point of operation during the  
24 cycle.

1 Q. Would the protection against inadvertent  
2 activation of the machine be a safeguarding method  
3 in the safety hierarchy?

4 A. No, the control activation of machines is  
5 not intended to be a way of safeguarding the point  
6 of operation on equipment like power presses and  
7 those kinds of things. What they want, what they  
8 being ANSI and OSHA want, is that point of  
9 operation having a safeguarding applied to it,  
10 which generally, as I said, is light curtains or  
11 barrier guards.

12 As I mentioned before, there are some  
13 situations where it is not reasonable to expect  
14 that you are going to use a barrier kind of guard  
15 and then you go to administrative/supervisory kinds  
16 of activities. But the way to safeguard this point  
17 of operation is not to change the foot pedal from  
18 one pedal to another. It is just not part of that.

19 Q. Is inadvertent activation of a press brake  
20 ever a good thing?

21 MR. ROBINSON: Object to the form of the  
22 question.

23 THE WITNESS: Well, let me put it this way,  
24 inadvertent of the press brake at certain times

1 could be a terrible thing. It can ruin the press  
2 brake. It can ruin parts. It can ruin dyes and it  
3 can injure people. But there a lot of times when  
4 presses are inadvertently activated and none of  
5 those things happen. That's the best I can answer  
6 that.

7 BY MR. HARTMAN:

8 Q. Is it ever good?

9 MR. ROBINSON: Same objection.

10 THE WITNESS: I don't know. I have never  
11 really thought about it in that context. As I sit  
12 here, I can't think of something good about it; but  
13 most of the time I think it winds up being benign.  
14 But there are serious considerations when any kind  
15 of equipment starts up at an inappropriate time.

16 If your car were to start up at an  
17 inappropriate time, it could cause problems. If  
18 your car were to move at an inappropriate time, it  
19 could cause problems. That doesn't mean that the  
20 brakes are bad or the accelerator is bad. It is  
21 just unexpected things can quite often cause  
22 problems.

23 BY MR. HARTMAN:

24 Q. Have you applied the safety priority --

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1 have you applied a safety prioritization system in  
2 evaluating this accident with Ms. Lindquist?

3 MR. ROBINSON: I will object to the form of the  
4 question.

5 THE WITNESS: I think I have. I don't know  
6 that I have formally went through it in here but  
7 I think I mentioned several times that the solution  
8 to this hazard, the solution that would have  
9 prevented this accident is not with the foot  
10 control but with point-of-operation safeguarding  
11 which it is my understanding Cory had on --  
12 available for this kind of machine and for other  
13 press, mechanical presses and maybe other press  
14 brakes at the facility.

15 So they were aware of it. They had it. They  
16 had it in place. They had it -- they are familiar  
17 with it. It wasn't like they were strangers of  
18 this kind of safeguarding. They just didn't apply  
19 it on this machine and allowed it to be operated  
20 without point-of-operation safeguarding. That  
21 would be Item No. 2 on the safety hierarchy,  
22 providing some kind of safeguarding.

23 BY MR. HARTMAN:

24 Q. Would you agree, sir, that had not

1 Ms. Lindquist inadvertently activated the foot  
2 control on the day of her accident, this injury  
3 would not have occurred?

4 MR. ROBINSON: Object to the form of the  
5 question. Misstates the testimony. Misstates this  
6 witness's prior testimony where he did not  
7 acknowledge the inadvertent activation at all. So  
8 you are now trying to get an answer that changes  
9 his prior testimony. It is very misleading the way  
10 you did that.

11 THE WITNESS: Yeah, you know, I think  
12 previously I said I think she was riding the pedal.  
13 But regardless there are a lot of things you could  
14 say if it wasn't for this, this accident wouldn't  
15 have happened.

16 Maybe if she had been home that day, it  
17 wouldn't have happened. Maybe if someone else had  
18 volunteered for the job, it wouldn't have happened.  
19 Maybe if there had been a lightning storm and the  
20 power went out, it wouldn't have happened.

21 The reason this accident happened isn't because  
22 she may have, and I don't believe she did, but you  
23 are alluding to maybe she inadvertently stuck her  
24 foot in there. The reason this accident happened

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1 is because her employer ignored all of the training  
2 criteria, all of the supervisory criteria, all of  
3 the guarding criteria of ANSI, their industry and  
4 OSHA.

5 They set up the machine and allowed it to be  
6 operated without a point-of-operation safeguarding.  
7 They set it up where she was having her hands in  
8 the point of operation. They didn't encourage her  
9 or test her or verify for themselves that she read  
10 the manual, that she followed any of the  
11 instructions in the manual or on the machine and  
12 they allowed that condition to go on long enough  
13 that eventually I believe while riding the pedal  
14 she injured her hands.

15 BY MR. HARTMAN:

16 Q. Sir, my question is had not Ms. Lindquist  
17 have activated the foot control, would you agree  
18 that she would not have been injured on the day of  
19 her accident?

20 A. No, no, had her hands not been in there --  
21 I mean there are a lot of things. You know, where  
22 do you want to draw the line? It is -- the cause  
23 of this accident -- the cause of this accident  
24 isn't that she -- that you are alleging that her

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1 foot accidentally went in there.

2 That's allowed to happen. That's allowed  
3 by the codes and standards to happen. You are  
4 supposed to have a point-of-operation safeguarding.

5 The question you should be asking me is  
6 isn't it true this accident wouldn't have happened  
7 if this employer did the custom and practice, if  
8 this employer followed ANSI standards, if this  
9 employer followed OSHA standards, if this employer  
10 put on this machine what they had on every other  
11 machine in the adjacent area, those kinds of  
12 safeguarding. That's what would have prevented  
13 this accident from happening.

14 But you are posing a question that, you  
15 know, if you want, yes, if it wasn't for that, it  
16 wouldn't have happened but that's not the causal  
17 factor here.

18 Q. Sir, my question is -- I am entitled to  
19 ask the question as I see fit and you are obligated  
20 to answer my question.

21 MR. ROBINSON: Well, that implies that he  
22 hasn't.

23 MR. HARTMAN: Well, he has not answered my  
24 question.

1 MR. ROBINSON: That's argumentative. What's  
2 the question?

3 BY MR. HARTMAN:

4 Q. My question sir, is, if Ms. Lindquist had  
5 not activated the press brake by use of the foot  
6 control on the day of this accident, would she have  
7 been injured?

8 A. I can't answer it any better than  
9 I already have.

10 Q. Would she have been injured?

11 A. I can't answer that question any better  
12 than I already have.

13 Q. Is it your testimony that you cannot  
14 answer me that had she not activated the foot  
15 pedal, she would not have been injured?

16 A. No, what I am testifying, I can't answer  
17 it any better than I already have; and if I give  
18 you a yes-or-no answer, it would be misleading and  
19 deceptive. And I don't intend to do that. So I am  
20 giving you the best, complete, clear answer I can.

21 Q. What is deceptive about if she had not  
22 operated the foot control, the machine would not  
23 have cycled and her hand would not have been  
24 injured? What is deceptive about that statement?

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1 MR. ROBINSON: Objection, argumentative.

2 BY MR. HARTMAN:

3 Q. That statement?

4 MR. ROBINSON: Objection, argumentative.

5 Why are you yelling, Mr. Hartman?

6 BY MR. HARTMAN:

7 Q. Answer me.

8 A. My answer if I were to give that answer  
9 would be deceptive because it leaves out important  
10 facts, the fact that it is not safeguarded, the  
11 fact that the employer knew it was safeguarded, the  
12 fact that the employer avoided and did not follow  
13 all of these mandated requirements, that the  
14 employer had these safeguards readily available to  
15 them and they didn't use those. Those kind of  
16 things, leaving those things out leaves someone who  
17 doesn't know that with a misleading conclusion.  
18 And I am sworn here to tell the truth, the complete  
19 truth, at least that's my impression, and answering  
20 the question yes or no would not do that.

21 Q. Sir, would you agree that the machine  
22 cycled by the operation of the foot control on the  
23 day of Ms. Lindquist's injury?

24 A. Yes, it did.

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1 Q. Would you agree, sir, that had she not hit  
2 the foot control the machine would not have cycled?

3 A. I will agree with that.

4 Q. Would you agree that had the machine not  
5 cycled there would have not been the opportunity  
6 for her hands to be crushed?

7 MR. ROBINSON: I will object to the form of the  
8 question.

9 THE WITNESS: Had the machine cycled -- repeat  
10 that.

11 BY MR. HARTMAN:

12 Q. Sir, my question was, had the machine not  
13 cycled while her hands were in the dye, she would  
14 not have sustained the injury?

15 A. Sure, if her hands were out of the dye  
16 because there a was a point-of-operation  
17 safeguarding, for example, or followed procedures,  
18 she would not have been injured.

19 Q. No, I am saying, sir, if your hands are in  
20 the dye and the machine doesn't cycle, you will not  
21 be injured; will you agree with me on that?

22 A. Injured as she was, that's correct.

23 Q. The last full paragraph of page 13.

24 A. The one that starts out the use?

1 Q. Yes.

2 A. Uh-huh.

3 Q. The use of a front cover over the foot  
4 control would result in a configuration that from a  
5 safety perspective might help the operator, might  
6 do nothing to help the operator or might hurt the  
7 operator; is that your testimony for that?

8 A. Yes.

9 Q. The plaintiff's expert has identified this  
10 type of device as a Class 5 device on the  
11 classification of safeguarding device, Ralph  
12 Barnett, R. Barnett, P. Barroso, Junior, Triodyne  
13 Safety Brief, V.1, N.1, Reprint April 1981.

14 Did I correctly read that?

15 A. Yes.

16 Q. Do you understand what the classification  
17 of safety devices is as authored by Professor  
18 Barnett and Mr. Barroso?

19 A. Sure, I think in his development of that  
20 over the years I have actually given him examples  
21 of things.

22 Q. Do you agree with the classification  
23 systems outlined on -- in the article on the  
24 classification of safeguarding devices?

1 MR. ROBINSON: Object to the form.

2 THE WITNESS: Do I agree that he wrote it --

3 BY MR. HARTMAN:

4 Q. No, do you agree with classifying safety  
5 systems as outlined in that article?

6 MR. ROBINSON: Same objection.

7 THE WITNESS: You can classify safety devices  
8 in various different ways. That is just one way  
9 that has been done by other people and Ralph  
10 Barnett incorporated it into a safety brief.

11 BY MR. HARTMAN:

12 Q. Have you ever used that classification  
13 system in classifying safety devices?

14 A. I actually use that as one of the examples  
15 of ways to classify safety devices in a safety  
16 course that I teach.

17 Q. Is it a legitimate method of classifying  
18 safety systems?

19 MR. ROBINSON: I will object to the form of the  
20 question.

21 THE WITNESS: It is legitimate but it can't be  
22 taken in a vacuum. You can't just say we are going  
23 to classify things and not think about codes and  
24 standards, criteria, accident trends, all of those

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1 other kinds of things.

2 But if someone puts you in a room and says all  
3 I want you to do is come up with two or three  
4 different ways of classifying safety devices, this  
5 could be one of those ways.

6 BY MR. HARTMAN:

7 Q. Do you classify the foot control with a  
8 gate as a Class 5 safety system?

9 A. I would say following this protocol, this  
10 method, it would be a Class 5 device.

11 Q. In your analysis of this type of safety  
12 system with a gated foot control, would you utilize  
13 the classification system?

14 A. I didn't understand the question. Say  
15 that again.

16 Q. Well, would you use the classification  
17 system as outlined in the --

18 A. Safety briefs?

19 Q. Safety brief on the classification of  
20 safeguarding devices to evaluate the foot control  
21 in this situation?

22 MR. ROBINSON: Objection to the form.

23 THE WITNESS: No, I wouldn't -- I probably  
24 wouldn't approach it that way. The way I would go  
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1 is I would look at the codes and standards and see  
2 what they mandate, what they require.

3 And they allow, they mandate, they require the  
4 kind of pedal that we saw that was sold with this  
5 product when Heim -- when it left Heim's control  
6 and at the time of the accident. So I would look  
7 to that. I wouldn't waste time trying to classify  
8 it.

9 The only reason for this section to be here is  
10 Ralph Barnett has said this is a good way to make  
11 this evaluation, and he has come up with a chart  
12 and a classification system that if you follow and  
13 if you use, you have to come to the conclusion that  
14 the gate on the front of a pedal is a bad idea for  
15 Heim to require or mandate on a press brake of this  
16 type.

17 BY MR. HARTMAN:

18 Q. So basically the reason you have that  
19 paragraph is to comment on Professor Barnett's  
20 analysis as opposed to saying you are using the  
21 system for your own analysis?

22 A. I am commenting on the fact that prior to  
23 this case he published documents and embraced  
24 positions having to do with classification and



1     safeguarding, application of safeguards that are  
2     180 degrees or just the opposite to what he is now  
3     saying in this case. That was the reason.

4           Q.     Sir, the reason you said that specific  
5     citation is because you are pointing out that with  
6     regard to that citation at that point in your  
7     report is to illustrate that Professor Barnett has  
8     testified or has classified things differently in  
9     prior situations?

10           MR. ROBINSON: Object to the form.

11           THE WITNESS: Not that he has classified things  
12     in prior depositions. That in his report and for  
13     this case he has taken a position that's counter to  
14     his general publications about safety and this is  
15     one.

16           BY MR. HARTMAN:

17           Q.     So you are not incorporating the  
18     classification system outlined in the  
19     classification of safety devices as part of your  
20     analysis as to whether or not the foot control with  
21     a gate is appropriate for use with a Heim press  
22     brake?

23           MR. ROBINSON: Objection to the form.

24           THE WITNESS: I wouldn't have used that

1 classification system, no. It wouldn't be a  
2 primary resource. You might -- if someone said  
3 make an exhaustive list of all of the reasons why  
4 not to do this, this might be one of them; but it  
5 wouldn't be the first, second or third.

6 BY MR. HARTMAN:

7 Q. Is that something that you used in  
8 determining that you would not utilize a gated foot  
9 control on a press brake?

10 MR. ROBINSON: Objection to the form.

11 THE WITNESS: No, what I would use are the  
12 codes and standards. But if someone said what  
13 about beyond codes and standards, what about beyond  
14 custom and practice, what about beyond what someone  
15 else is selling, what else could you do? How else  
16 could we approach this? I might say, well, there  
17 is this classification system and let's try to use  
18 that.

19 And if we use that, we find we are consistent  
20 with the codes and standards and custom and  
21 practice that do not embrace the use of a foot  
22 pedal with a door on it for press brakes.

23 BY MR. HARTMAN:

24 Q. I understand that if someone asked that

1 but in formulating your opinion did you use that  
2 classification system as part of your analysis as  
3 to why a gated foot control should not be utilized  
4 in conjunction with the Heim press brake?

5 MR. ROBINSON: Objection to the form.

6 THE WITNESS: I considered it. I went through  
7 it but I didn't use it as my primary analysis, no.

8 BY MR. HARTMAN:

9 Q. Did you use it as any part of your  
10 analysis?

11 A. Just to point out the inconsistency.

12 Q. So you basically have just used it to  
13 rebut what Professor Barnett has said to show he  
14 has been inconsistent in his report --

15 A. What I did was I said, let's assume that  
16 We were to use press -- Ralph Barnett's safety  
17 philosophy. Let's assume we were to use it. It  
18 would be -- it would result in a conclusion  
19 contrary to what he has testified in his deposition  
20 and in his report. That's what I primarily used it  
21 for.

22 But as I said, you could use it. I don't  
23 know that I overtly used it, and I wouldn't think  
24 it is the primary deciding factors by any means.

1 But it is inconsistent with what his philosophy is  
2 in his writings and what he is now saying in this  
3 case.

4 Q. If his classification system would have  
5 said that the foot control should be utilized, the  
6 gated foot control should be utilized in  
7 conjunction with a press brake, would that have  
8 changed your opinion?

9 MR. ROBINSON: Objection to the form.

10 THE WITNESS: Well, it would be an irrational  
11 result. It would be inconsistent with the thing.  
12 If you have something that says it should be round,  
13 round, round and now I say it should be square, you  
14 would say this article doesn't make any sense.

15 So if you use the philosophy, philosophical  
16 aspects here, you wouldn't come to that conclusion;  
17 and if it did, you would say this article doesn't  
18 make sense.

19 THE VIDEOGRAPHER: Off the record at 11:47 a.m.

20 (A short break was taken.)

21 THE VIDEOGRAPHER: This is the beginning of  
22 Tape No. 3. Back on the record at 11:51 a.m.

23 BY MR. HARTMAN:

24 Q. Let's turn to page 14, please.

1 A. Sure.

2 Q. With regard to training and the safety  
3 hierarchy, would HOOD be a training method of  
4 safeguarding machines?

5 MR. ROBINSON: Object to the form.

6 BY MR. HARTMAN:

7 Q. Do you know what HOOD is?

8 A. Yes.

9 Q. What is HOOD?

10 A. HOOD is an abbreviation or acronym that  
11 stands for Hands Out of Dyes.

12 Q. Is part of the Hands Out of Dyes method of  
13 safeguarding the machine, the operator, involve  
14 training of the operator?

15 MR. ROBINSON: Objection to the form.

16 THE WITNESS: That's two questions really.

17 Hands Out of Dyes is a recommended practice  
18 that currently is not a complete adequate way of  
19 safeguarding most machines in most operations but  
20 it is something that's embraced by ANSI. It is  
21 something embraced by OSHA. It is something  
22 embraced by the safety community.

23 It relies heavily on supervision, training and  
24 worker's ability to perform their function with the

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1 right kinds of, in this case, perhaps right kinds  
2 of hand tools to take pieces and put them in and  
3 take them out.

4 BY MR. HARTMAN:

5 Q. So HOOD requires supervisory training,  
6 operator training, designing the interface with the  
7 point of operation and use of tools by the  
8 operator?

9 MR. ROBINSON: Objection to the form.

10 THE WITNESS: It requires that the worker, the  
11 operator be trained, has supervision and probably  
12 in this particular operation be provided with tools  
13 so as to put the piece parts in and to take the  
14 completed or the part out after it has been  
15 processed.

16 BY MR. HARTMAN:

17 Q. Do you know why HOOD has not been  
18 instituted as a means to eliminate hands being in  
19 the dye area?

20 MR. ROBINSON: Objection to the form.

21 THE WITNESS: Because when it was introduced,  
22 it was introduced at a time when procedural  
23 standards were not accepted very well. And at that  
24 point in time in the '70s, most of the standards

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1 were being written around hardware kinds of things.

2 Today, if HOOD was introduced today, it might  
3 be more likely to be embraced and accepted because  
4 we have many more procedural standards that are  
5 accepted now.

6 The problem with HOOD was that employers  
7 started to use it in place of safeguarding. They  
8 started to rely too heavily on it. And when they  
9 could have easily provided point-of-operation  
10 safeguarding, they would say, well, we will just  
11 train the guy or train the person and rely on that  
12 when it probably was better to do it other ways.

13 HOOD also had some application for small  
14 production runs where point-of-operation  
15 safeguarding may have been impractical. And under  
16 those circumstances it was decided that you could  
17 run a machine and put your hands in the point of  
18 operation as long as there was a lot of  
19 supervision, administrative controls and it cost  
20 production which meant money.

21 BY MR. HARTMAN:

22 Q. On the first full paragraph of page 14  
23 beginning with additionally --

24 A. Yes.

1 Q. -- it says additionally there is some  
2 enhanced hazard communication to an operator in the  
3 use of this, where in the sheer operation of the  
4 machine informs the operator of the presence of a  
5 potential hazard at the point of operation.

6 Did I correctly read your report?

7 A. I think so.

8 Q. And is that your testimony today?

9 A. Yes.

10 Q. Would you explain what you mean by the  
11 sheer operation of the machine informing the  
12 operator of a hazard communication?

13 A. If I have a hole in that wall that your  
14 finger could fit in and you have no idea what's on  
15 the other side, you might put your finger in it not  
16 knowing what's on the other side. It is just a  
17 hole in the wall.

18 But if the rest of the wall was Plexiglass  
19 and you saw that on the other side of the wall  
20 there were bunch of poisonous snakes and if you put  
21 your finger in there, the snakes would bite you,  
22 you probably wouldn't put your finger there.

23 This machine manifests its danger every  
24 time it makes a piece. There is a huge ram. There



1 are huge dye pieces. There are stationary pieces  
2 that come together with enough force to bend and  
3 shape metal. And there is no doubt about it that  
4 if you have your hand there, it will be injured.

5 Ralph Barnett in one of his publications  
6 has the Doctrine of Manifest Danger, which talks  
7 about that fact. When danger announces itself,  
8 that phenomenon itself is part of the safety of the  
9 machinery.

10 When brakes start to fail and they start  
11 to make an ugly noise before they put you in  
12 jeopardy, that's part of the safety of the machine.  
13 When a machine starts to vibrate for three days  
14 before it throws a piece out and hurts you, that  
15 vibration is alerting you to that something is  
16 wrong.

17 This machine, its very action tells the  
18 operator that if they have their hand in there and  
19 they touch the controls or the controls were to go  
20 off by themselves, that they would be seriously  
21 hurt.

22 Now the plaintiff in this case  
23 acknowledged the fact, and I think she used the  
24 term, yeah, it is common sense that if my hands are

1 in there and I put my foot on the pedal, I am going  
2 to be hurt.

3 So I am talking about it. Ralph Barnett  
4 had a publication about it. The plaintiff in this  
5 case acknowledges she knew that was the situation.

6 Q. The Doctrine of Manifest Danger is the  
7 protocol advocated by designers for causing a  
8 machine or a system to communicate to users that  
9 its safety has been compromised before the injury  
10 occurs; is that correct?

11 A. Yes.

12 Q. And the Doctrine of Manifest Danger, is  
13 that something you understand?

14 A. Yes.

15 Q. Is that something you agree with?

16 MR. ROBINSON: Object to the form.

17 THE WITNESS: You know this, the Doctrine of  
18 Manifest Danger is a title that Ralph Barnett has  
19 put on this. This concept has been around for a  
20 long time, and we have all known it.

21 We know that you shouldn't step out in front of  
22 a moving car; and the bigger the car is, whether it  
23 is a truck, it is even more likely you don't want  
24 to step out in front of. If it is a little kid on

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1 a tricycle, you might step out in front of it  
2 because you know it is not a big danger.

3 So these concepts in some ways are ubiquitous  
4 in our upbringing in the United States. So it is  
5 not like I agree that someone has come up with  
6 putting this title on here.

7 This concept is something I don't think is  
8 something that you say you agree with. I think it  
9 is something we have all experienced. And in a  
10 safety brief this was just made into an article to  
11 highlight that.

12 BY MR. HARTMAN:

13 Q. What do you call the protocol advocated by  
14 designers for causing a machine or system to  
15 communicate to users its safety has been  
16 compromised before an injury occurs?

17 A. What do I call it?

18 Q. Yes.

19 A. I call it that people have some common  
20 sense and can identify many of the hazards in their  
21 environment, work environment, home environment and  
22 they respond appropriately.

23 Now, there are some hazards it is hard to  
24 understand. So a hot pot, a little kid doesn't

1 know it is hot and they are apt to take their hands  
2 on it and get burned. So that's an example of a  
3 hazard that doesn't manifest its danger.

4 Now and perhaps you could make pots that  
5 when they got hot, changed color and then you can  
6 see it is hot because it changes color and we  
7 haven't done that.

8 But there is this protocol that we go  
9 through in our every day lives as users and  
10 protocols that people use in designing equipment  
11 that help to tell us that there is a hazard there.  
12 It may be the way a machine moves, it vibrates,  
13 makes a noise, a light comes on. All of those  
14 things tell us there is a hazard here and that's  
15 what this manifest danger fancy titled article was  
16 about.

17 And it was put kind to make it a little  
18 more interesting in the context of when things  
19 fail. But manifest danger isn't just about when  
20 things fail. If the danger is there, sometimes it  
21 manifests itself in a very obvious way; and  
22 sometimes it is hidden.

23 In this case that danger would have been  
24 very obvious to anyone who uses this machine.

1 Q. Is there a protocol advocated by designers  
2 for causing a machine or system to communicate to  
3 users its safety has been compromised before an  
4 injury occurs?

5 A. I think there is this general protocol  
6 that you try to alert people in your design and in  
7 your use of equipment, you appreciate that, that  
8 something is hazardous, yes.

9 Q. What is the compatibility hypothesis that  
10 you utilized in the fourth full paragraph, third  
11 line, it says, in the deposition of one of the Cory  
12 setup personnel, it is indicated that all other  
13 presses at the plant utilized light curtains and/or  
14 two hand controls but plaintiff's expert has  
15 ignored his own compatibility hypothesis.

16 A. Yes. If you look at Ralph Barnett's  
17 publications, one of them has a section about the  
18 compatibility hypothesis. And the idea is if you  
19 have five similar machines that they should have or  
20 one machine with five similar hazards on it, for  
21 example, that all of those hazards should have  
22 about the same level of safety.

23 So if there are five pinch points on a  
24 machine and one has a guard on it that's

1 interlocked, then they probably all should have  
2 guards that are interlocked because people have the  
3 expectation that it is going to be guarded equally.  
4 So there is this compatibility kind of thing.

5 It is incompatible if one is guarded to a  
6 higher level than another. So if you have multiple  
7 machines and they all have light curtains on them,  
8 in some ways it is very incompatible to have a very  
9 similar machine, has similar kinds of things, has  
10 similar kinds of hazards and you don't put it on  
11 there.

12 The reasonable thing to do is to try to  
13 make those machines all consistent and compatible  
14 one with the other which would mean in this case  
15 having light curtains on this machine.

16 So in his writings Ralph Barnett has  
17 embraced this idea that workplaces should have  
18 consistency or compatibility in safeguarding  
19 approaches. In this particular case he hasn't  
20 mentioned that. He has ignored that, the fact that  
21 other machines with similar hazards have light  
22 curtains on it and this one doesn't. That is  
23 incompatible. That can lead to an accident by  
24 itself.

1 Q. Do you agree with the compatibility  
2 hypothesis?

3 MR. ROBINSON: Objection to the form.

4 THE WITNESS: I believe in the compatibility  
5 hypothesis not using necessarily that term. It is  
6 something that we all have again experienced. If  
7 you have a fleet of cars in your house, two or  
8 three cars, as you get from one car to another, the  
9 horn is in the center. The horn is on here. The  
10 horn is on the end of the thing.

11 It is the inconsistency. So you are in an  
12 emergency and you are used to driving the car with  
13 the horn on the center. And you hit the center.  
14 It doesn't do anything. It is not compatible with  
15 the other car.

16 So there is this inconsistency that can cause  
17 accidents by itself. If sounding your horn was  
18 critical and you couldn't find your horn and you  
19 had to search around three different places to find  
20 it, it may delay you sounding your horn to the  
21 point where there is an accident.

22 So I believe in the fact that compatibility and  
23 miscompatibility can lead to reducing accidents and  
24 increasing the probability of accidents.

1 Q. Did the incompatibility of safeguards in  
2 the Cory plant cause the accident Ms. Lindquist was  
3 involved in?

4 MR. ROBINSON: Objection to the form.

5 THE WITNESS: I don't think the incompatibility  
6 by itself did. I think it needed a  
7 point-of-operation guarding, and I think the  
8 point-of-operation safeguarding should have been  
9 compatible with the other machines.

10 So if the other machines all used light  
11 curtains, I think it is reasonable to use light  
12 curtains here. If all of the other machines used  
13 barrier guards and this one used a light curtain,  
14 then there might be some incompatibility where  
15 people have the expectation that this machine has a  
16 barrier guard on it when it doesn't.

17 But I don't think the incompatibility here  
18 caused it. The point I was trying to make in this  
19 part of the report was that if you looked at  
20 compatibility and incompatibility, the obvious  
21 conclusion would be this machine needs to be  
22 compatible with the other machines. It should have  
23 had the same safeguarding. It should have had  
24 light curtains.



1

2 BY MR. HARTMAN:

3 Q. On page 15 you indicate that there are  
4 additional comments concerning the plaintiff's  
5 expert report.

6 A. Yes.

7 Q. Does -- did anything in Professor  
8 Barnett's report -- strike that.

9 Did you use anything in Professor  
10 Barnett's report in order to formulate your opinion  
11 that the Heim press brake was safe?

12 MR. ROBINSON: Object to the form.

13 THE WITNESS: Did I use anything in his report  
14 to conclude that the Heim press is safe?

15 I used the same codes and standards he used.  
16 I used the same ANSI and OSHA codes, and they say  
17 the press is safe. The press as far as the foot  
18 control the way Heim sold it is safe.

19 BY MR. HARTMAN:

20 Q. Let me rephrase the question.

21 Did you rely upon any of Professor  
22 Barnett's writings or articles or analysis to make  
23 your determination that's contained in your report  
24 that the Heim press brake was safe?

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1 MR. ROBINSON: Object to the form.

2 THE WITNESS: Well, you kind of asked this  
3 question as we have gone along about do I believe  
4 in this doctrine, do I believe in this safety  
5 philosophy, do I believe in this theorem that Ralph  
6 Barnett has before and typically my answer has been  
7 in regards to this accident and this piece of  
8 equipment and the foot controls, I wouldn't use  
9 those. I would use the codes and standards as  
10 primary sources for making that decision.

11 And then I said if I was asked to, I might use  
12 other methods and they might include the general  
13 literature and the custom and practice. And one of  
14 those other methods might be using some of these  
15 philosophical approaches.

16 As I mentioned, I use several of these  
17 philosophical approaches in classes I teach about  
18 safety. But you can't take these things in a  
19 microcosm and then apply them cart blanche. There  
20 are broad statements in these publications  
21 repeatedly that I think are inconsistent, and  
22 I used those to identify those inconsistencies.  
23 And I don't see a problem in using those.

24 I don't see a problem in saying the dependency